

(Approved by the Office of Management and Budget under OMB control number 2130-0181)

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9976, June 17, 1970; CGD 77-147, 47 FR 21809, May 20, 1982; 55 FR 696, Jan. 8, 1990; CGD 88-057, 55 FR 24236, June 15, 1990; CGD 85-061, 55 FR 41917, Oct. 16, 1990; CGD 95-027, 61 FR 26000, May 23, 1996; USCG-2000-7790, 65 FR 58460, Sept. 29, 2000]

**§ 54.01-10 Steam generating pressure vessels (modifies U-1(e)).**

(a) Pressure vessels in which steam is generated are classed as "Unfired Steam Boilers" except as required otherwise by paragraph (b) of this section. Unfired steam boilers must be fitted with an efficient water level indicator, a pressure gage, a blowdown valve, and an approved safety valve as required by § 54.15-15. Unfired steam boilers must be constructed in accordance with this part other than when the pressures are more than 206 kPa (30 psig) or the temperatures of the working fluid are more than 454 °C (850 °F) when such boilers must be constructed in accordance with part 52 of this subchapter.

(b) Vessels known as "Evaporators" or "Heat Exchangers" are not classified as unfired steam boilers. They shall be fitted with an approved safety device as required under § 54.15-15 and constructed in accordance with this part.

(c) An evaporator in which steam is generated shall be fitted with an efficient water level indicator, a pressure gage, and a blowdown valve.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGD 81-79, 50 FR 9436, Mar. 8, 1985; CGD 95-012, 60 FR 48044, Sept. 18, 1995]

**§ 54.01-15 Exemptions from shop inspection and plan approval (replaces U-1(c) (6) through (9)).**

(a) The following classifications are exempt from shop inspection and plan approval requirements of this part:

(1) Vessels containing water at a pressure not greater than 100 pounds per square inch gage, nor a temperature above 200 °F., including those containing air, the compression of which serves only as a cushion. Air charging lines may be permanently attached provided the air pressure does not exceed 15 pounds per square inch gage.

(2) Hot water supply storage tanks heated by steam or any other indirect means when none of the following limitations is exceeded:

(i) A heat input of 200,000 B.t.u. per hour;

(ii) A water temperature of 200 °F.;

(iii) A nominal water-containing capacity of 120 gallons; or

(iv) A pressure of 100 pounds per square inch gage.

The exemption of any tank under this subparagraph requires that it shall be fitted with a safety relief valve of at least 1-inch diameter, set to relieve below the maximum allowable working pressure of the tank.

(3)(i) Vessels having an internal operating pressure not exceeding 15 pounds per square inch gage with no limitation on size. (See UG-28(e) of the ASME Code.)

(ii) Cargo tanks of pressure vessel configuration are not included in the exemption in paragraph (a)(3)(i) of this section.

(4) Class I, II, and III pressure vessels that meet the requirements of § 54.01-5 (c)(3) and (c)(4).

(5) Condensers and heat exchangers, regardless of size, where the design is such that the liquid phase is not greater than 100 pounds per square inch gage and 200 °F. and the vapor phase is not greater than 15 pounds per square inch gage provided system over pressure conditions are considered.

(b) For fluid conditioner fittings see § 56.15-1 of this subchapter.

[CGFR 68-82, 33 FR 18828, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9977, June 17, 1970; CGFR 70-143, 35 FR 19906, Dec. 30, 1970; CGD 77-147, 47 FR 21810, May 20, 1982]

**§ 54.01-17 Pressure vessel for human occupancy (PVHO).**

Pressure vessels for human occupancy (PVHO's) must meet the requirements of subpart B (Commercial Diving Operations) of part 197 of this chapter.

[CGD 76-009, 43 FR 53683, Nov. 16, 1978]